



ORANGE COUNTY

SANITATION DISTRICT

FEATURED PRODUCTS

Series 201 Epoxoprime

Series 218 MortarClad

Series 406 Elasto-Shield

The Orange County Sanitation District (OCS D) serves more than 2.5 million residents of central and northwestern Orange County, California, and currently operates the nation’s third largest wastewater treatment plant west of the Mississippi River. In 2002, the OCS D Board of Directors voted to move to 100 percent secondary treatment of all approximately 250 million gallons of wastewater received each day. Undoubtedly an expansive development, the project was well underway in 2003, with a scheduled completion date of 2012.

Phase one of the secondary treatment facility included the construction of two trickling filters at Plant One. The concrete modules for the project were manufactured and prepared in accordance with SSPC-SP13/NACE No. 6, ICRI CSP5 in Ensenada, Mexico. Tnemec’s Series 218 MortarClad, an epoxy-modified cementitious resurfacer, was trowel-applied to the surface at 1/16” thickness, and the modules were then shipped from Ensenada to the project site in Orange County.

Series 201 Epoxoprime, a modified polyamine epoxy, was then airless spray- and roller-applied, followed by Series 406 Elasto-Shield, a two-component, 100% solids, fast-setting polyurethane, which was spray-applied with plural component equipment at 90.0 mils DFT. A total of 5,250 gallons of Series 406 was used on the project, and the project owner, engineer and contractor took notice of the coating’s quality.

Series 406 Elasto-Shield was selected based upon its excellent protection of the concrete against biogenic sulfide corrosion, as well as its semi-flexible properties to resist minor hairline crack movement. Concrete support members are typically encased in synthetic media blocks housing bacteria and are not accessible for many years.

“This project was the contractor’s first experience with Series 406,” said Tnemec coating consultant Denis Amyot. “The system performed very well, and he has since completed many other projects using Elasto-Shield.”

PROJECT INFORMATION

Project Location

Fountain Valley, California

Project Completion Date

November 2005

Owner

Orange County Sanitation District

Engineer

Black & Veatch Corporation
Irvine, California

Fabricator

Willis Construction
San Juan Bautista, California

General Contractor

J.R. Filanc Construction
Escondido, California

Field Applicator

Parada Painting, Inc.
Poway, California



Series 406 Elasto-Shield protects the concrete modules at the Orange County Sanitation District’s secondary treatment facility against biogenic sulfide corrosion.